No. 804,956. PATENTED NOV. 21, 1905.

S. KEIGHLEY.

CROSS MUNNION FOR FIREPROOF WINDOWS.

APPLICATION FILED MAR. 23, 1905.

FIG. 1

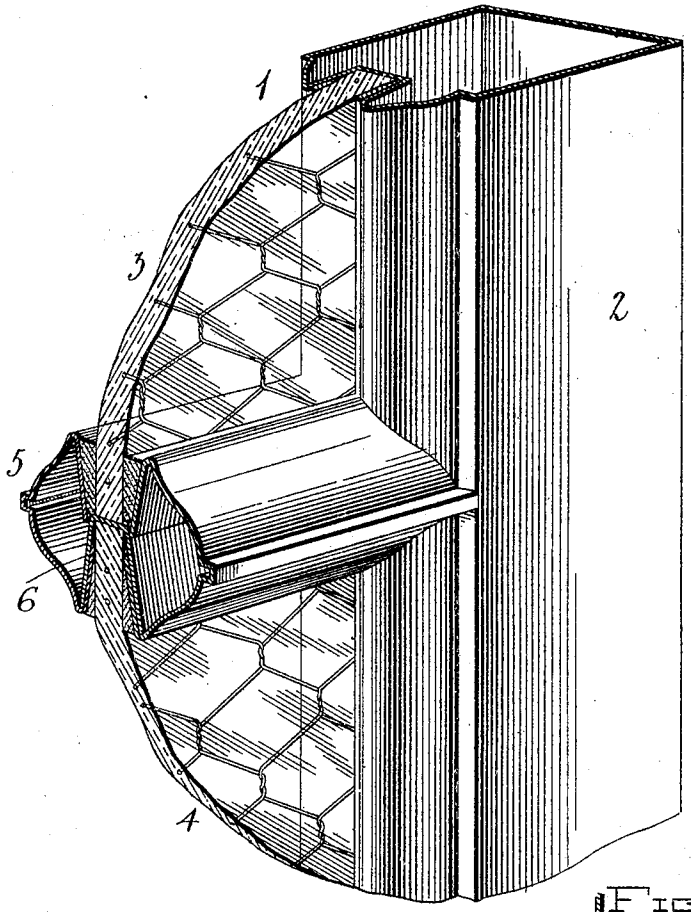


FIG. 5

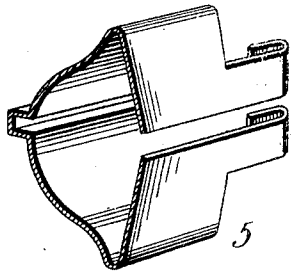


FIG. 4

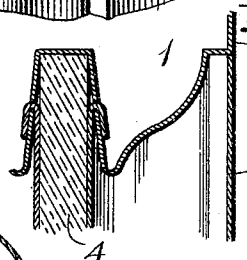


FIG. 2

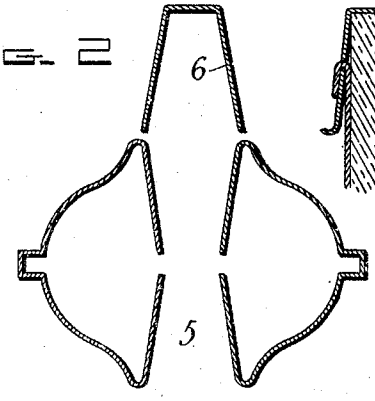
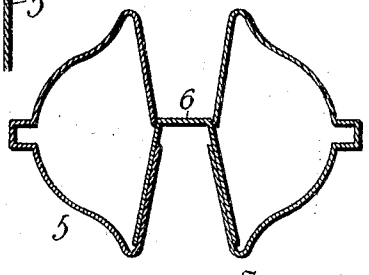


FIG. 3



Witnesses
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CROSS-MUNNION FOR FIREPROOF WINDOWS.

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Application filed March 23, 1905. Serial No. 251,665.

To all whom it may concern:

Be it known that I, SMITH KEIGHLEY, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Cross-Munnions for Fireproof Windows; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in cross-munnions for fireproof windows.

The object of the invention is to provide a cross-munnion formed of sheet metal and having means to firmly connect the two sections of the munnion together and to form a bridge or support for the upper pane of glass.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a detail fragmentary sectional view of a portion of a window-sash, showing the construction and arrangement of the improved cross-munnion thereon. Fig. 2 is an enlarged vertical transverse sectional view through the two sections of a cross-munnion and the connecting-bridge, showing parts separated. Fig. 3 is a similar view showing the parts connected. Fig. 4 is a detail sectional view through the side rail of the sash and the munnion-sections, showing the manner of connecting the munnion with the rail; and Fig. 5 is a detail perspective view of the end of one of the munnion-sections.

Referring more particularly to the drawings, 1 denotes a portion of a window-sash, showing a side rail 2 and a portion of the upper and lower panes of glass 3 and 4. Joined to the side rail 2 at the juncture of the upper and lower panes of glass 3 and 4 is the improved cross-munnion 5, said munnion being preferably secured to the said rail 2 by clenching the same through the rail, as shown.

The munnion 5 is here shown and is preferably constructed in two counterpart sections, each of which is formed of sheet metal bent into the desired shape, the edges of the metal being brought into close proximity to each other on the inner side of the sections of the munnion.

Arranged between the sections of the munnion is a connecting-bridge 6, said bridge being preferably formed of channel-shaped sheet metal. The side walls of said bridge are preferably inclined, as shown. In applying the bridge 6 to the sections of the munnion the inclined side walls of the same are inserted through the space between the inner edges of the sections of munnion and into the lower portions of the same, whereby when said bridge is pressed downwardly the inclined walls of the same tend to draw the sections of the munnion inwardly toward each other, thereby securely clamping the same together upon the panes of glass between the same. When the munnion is so arranged, the upper edge of the lower pane of glass will project between the lower portions of the sections of the munnion and into the channel-iron bridge. The upper pane of glass lies between the upper portion of the sections of the munnion and rests upon the bridge 6, thereby forcing the same downwardly into the lower portion of the munnion-sections, so that the heavier the upper pane of glass is the harder the bridge will be forced downwardly and the tighter the sections of the munnion will be drawn together upon the panes of glass, the bridge thereby forming a double function of supporting the upper pane of glass and also clamping the munnion-sections together to firmly hold said panes in place.

In the space between the sides of the glass panes and the adjacent inner walls of the munnion-sections may be placed cement or other plastic sealing material to prevent the entrance of water between said parts. The panes of glass are here shown as having embedded therein wire-netting, thereby forming, with the metallic structure of the window sash and munnion, a strong fireproof window.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cross-munnion for fireproof windows comprising two hollow metal sections, and a bridge-piece for connecting the two sections and drawing them toward each other to firmly

engage the panes of glass, said bridge-piece having inclined sides extending within one side of each of said sections, substantially as described.

2. A cross-munnion of the character described, comprising two hollow sheet-metal sections adapted to be joined to the side rails of a sash, an inverted-channel-shaped bridge having inclined side walls adapted to be inserted into the sections of said munnion to draw the same together and to form a support for the upper pane of glass, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SMITH KEIGHLEY.

Witnesses:
C. E. HUNT,
J. A. GRIESBAUER, Jr.